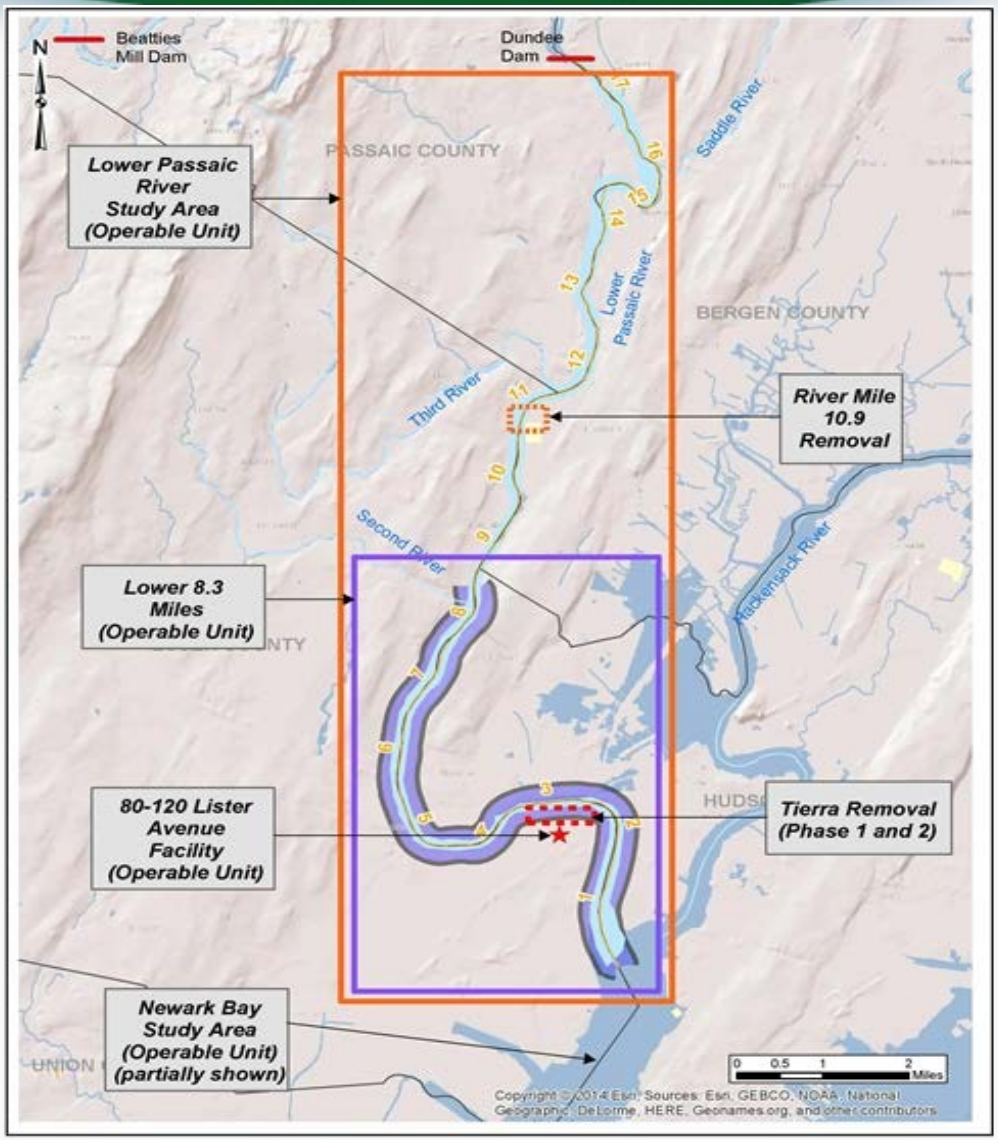
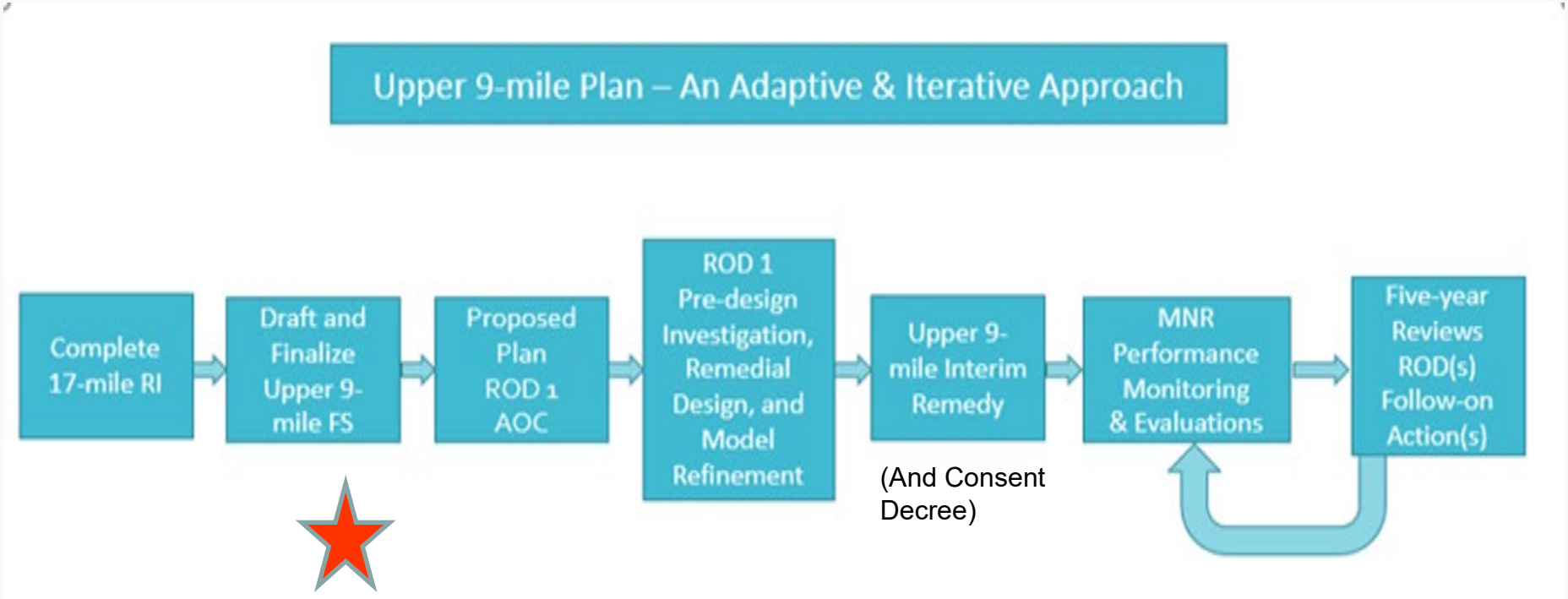
Community Advisory Group Meeting
September 17, 2019

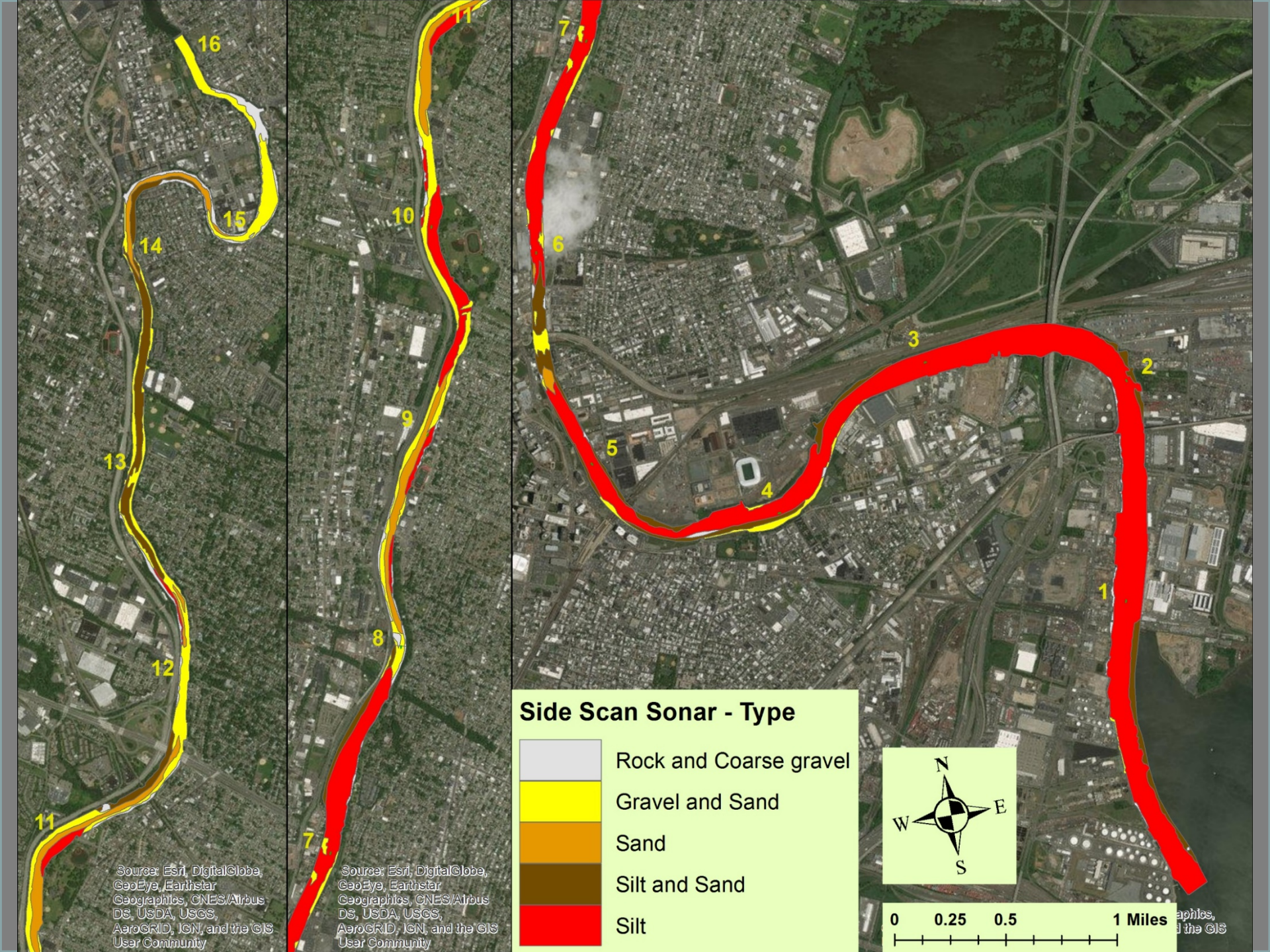


Diamond Alkali Superfund Site Overview:

- 80-120 Lister Avenue (Operable Unit 1)
- Lower 8.3 miles of the Lower Passaic River (Operable Unit 2)
- Newark Bay Study Area (Operable Unit 3)
- 17-Mile Lower Passaic River Study Area (LPRSA) (Operable Unit 4)

Upper 9 Mile Potential Interim Remedy




Side Scan Sonar - Type
Rock and Coarse gravel
Gravel and Sand
Sand
Silt and Sand
Silt
N
W
E
S
0
0.25
0.5
1 Miles
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
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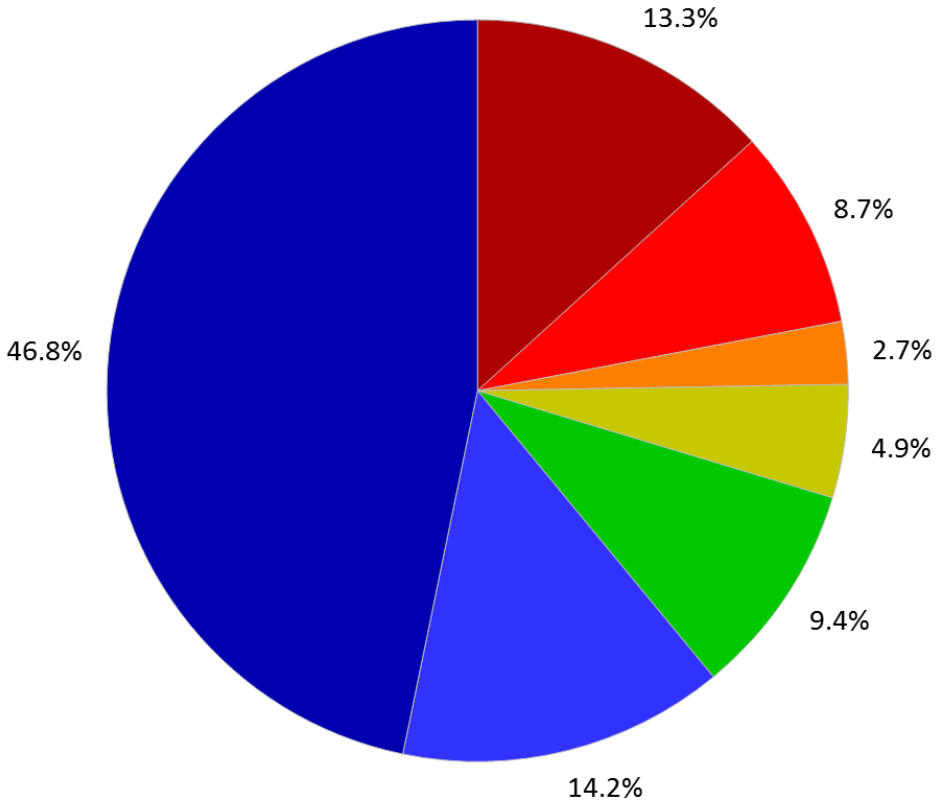
Surface Weighted Average Concentration (SWAC)

2,3,7,8-TCDD SWAC 994 ppt

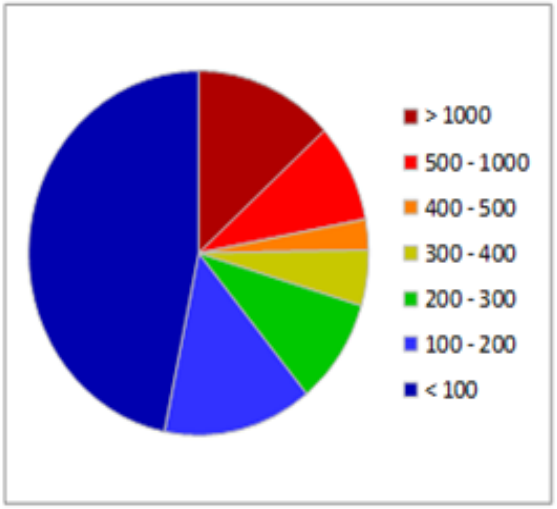


Conc Range (ppt)	Percent of Area	Average Conc (ppt)	Percent × Conc (ppt)
> 1000	13.3%	6367	845
500 - 1000	8.7%	716	62
400 - 500	2.7%	445	12
300 - 400	4.9%	348	17
200 - 300	9.4%	234	22
100 - 200	14.2%	143	20
< 100	46.8%	33	16
		SWAC = Sum =	994

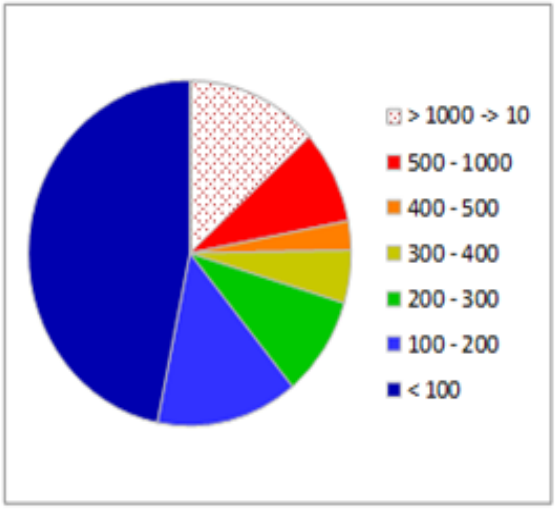
Note: This is a simplified example only. The numbers have been further refined in the FS.

SWAC for Example Remedial Action Levels

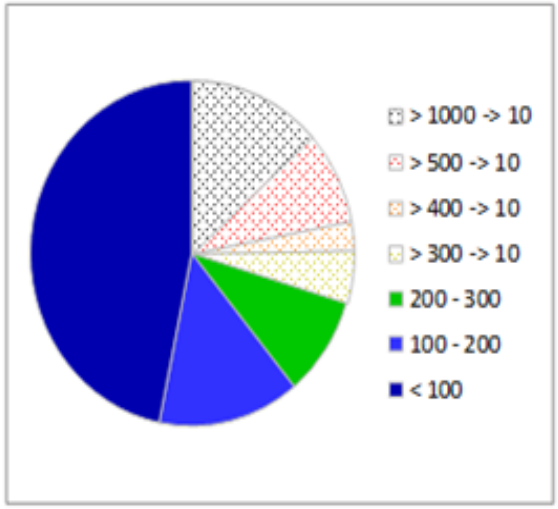
No Remedy
SWAC = 994 ppt
Area Remediated = 0.0%
Percent Reduction = 0%



RAL = 1000
SWAC = 151 ppt
Area Remediated = 13.3%
Percent Reduction = 85%



RAL = 300
SWAC = 61 ppt
Area Remediated = 29.7%
Percent Reduction = 94%



Note: This is a simplified example only. The numbers have been further refined in the FS.

Interim Remedy Remedial Action Objectives

- RAO 1: Address sediment sources to attain 2,3,7,8-TCDD SWAC of not more than 85 ppt (91% reduction in SWAC and approx. an order of magnitude higher than the lower 8.3 mile remedy 2,3,7,8-TCDD RG); attain PCB SWAC at or below background
- RAO 2: Address subsurface sediments that could become contamination sources based on erosion potential and remedial action levels derived for subsurface sediments

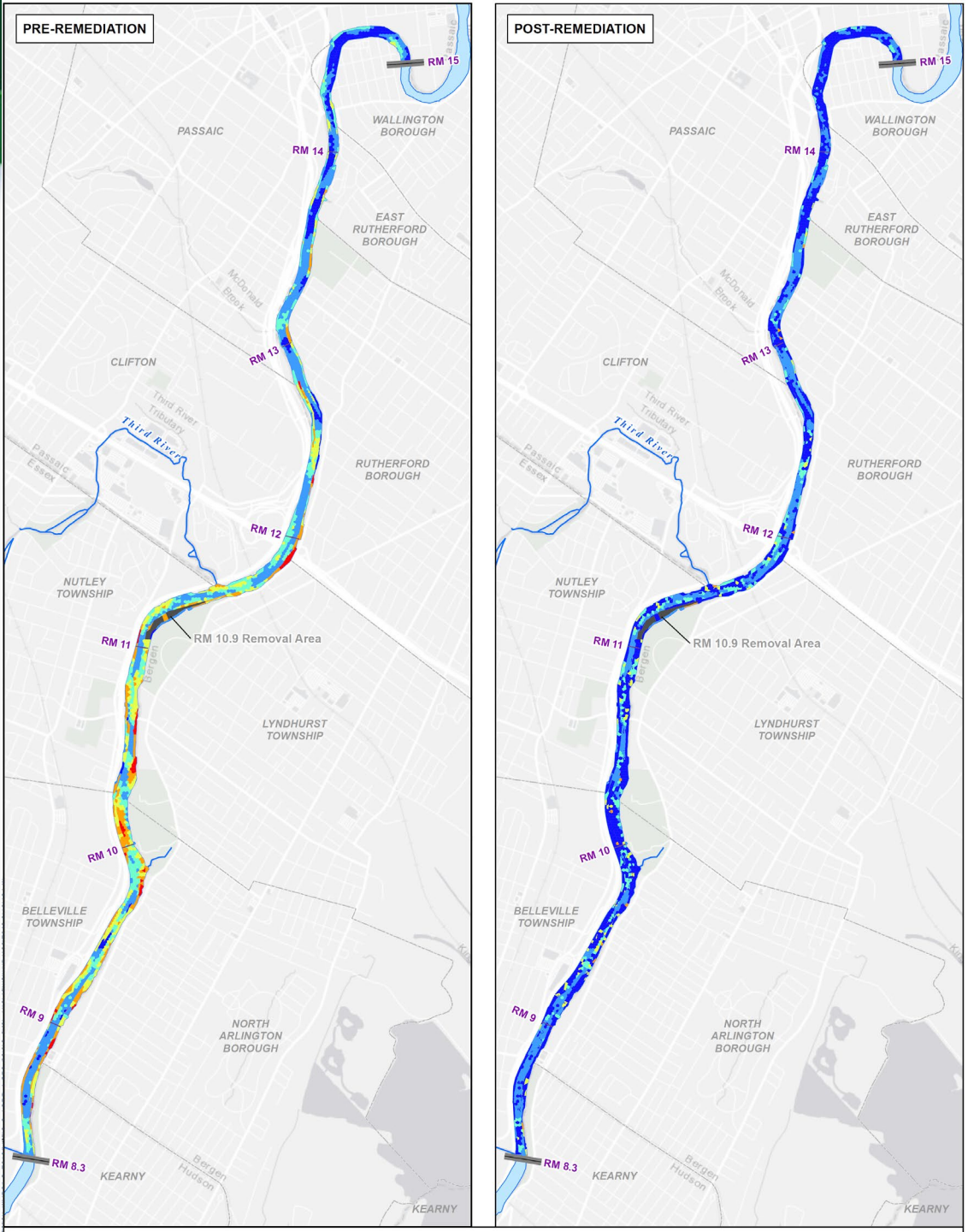
Draft Feasibility Study Alternatives

- Interim remedy **target** 2,3,7,8-TCDD SWACs:
  - 65 ppt
  - 75 ppt
  - 85 ppt
  - 125 ppt (this target SWAC is for comparison in the interim remedy FS, and is not be eligible for selection)

Note: 65, 75, and 85 ppt SWAC alternatives include target PCB SWAC at or below background

Draft FS Findings

Alternative (SWAC)		RAL (ppt)	% SWAC Reduction of dioxin	Acres	Volume (cy)	Years	Cost $M
1	No action (932 ppt)	---	0%	0	0	---	0
2	85 ppt	260	91%	90	363,000	4.3	412
3	75 ppt	205	92%	96	387,000	4.6	433
4	65 ppt	165	94%	104	419,000	4.9	460
5	125 ppt	346	87%	62	250,000	3.2	314



Example of Footprint from draft FS (Alternative 3)

2,3,7,8-TCDD (ng/kg)

- ≤10
- 10 - 100
- 100 - 300
- 300 - 1,000
- 1,000 - 10,000
- ≥10,000

The 9 FS Evaluation Criteria – General Definitions

Threshold Criteria

- *Overall Protection of Human Health and the Environment* – assesses if a remedy provides adequate protection of human health and the environment (short-term and long-term) from unacceptable risks
- *Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)* – assesses if a remedy is compliant with pertinent regulations and standards

Balancing Criteria

- *Long-Term Effectiveness and Permanence* – addresses the magnitude of risk remaining after a remedial action and the adequacy and reliability of the controls to manage that risk
- *Reduction of Toxicity, Mobility, or Volume through Treatment* – addresses the statutory preference for treating waste to reduce its toxicity, mobility, or volume
- *Short-term Effectiveness* – addresses the effects of a remedy during construction
- *Implementability* – addresses the technical and administrative feasibility of an alternative and the availability of services, materials, and equipment to implement the remedy
- *Cost* – provides the estimated cost of a remedy, consisting of capital costs and O&M costs

Modifying Criteria

- *State Acceptance* – Considered by EPA during remedy selection and ROD preparation
- *Community Acceptance* - Considered by EPA during remedy selection and ROD preparation

Evaluation Criteria – Draft FS

Threshold Criteria

- *Overall Protection of Human Health and the Environment:*
  - Ability to progress toward overall protection
  - Ability to achieve RAOs (SWAC not more than 85 ppt)

  (Note: interim remedy is a source control remedy)

- *Compliance with ARARs:*
  - Ability to achieve ARARs
  - Need for ARAR waivers

Evaluation Criteria – Draft FS

Balancing Criteria

- *Long-Term Effectiveness and Permanence:*
  - Control of sources
  - Cap Stability
  - Extent of need for monitoring, maintenance, and institutional controls
  - Recovery potential

- *Reduction of Toxicity, Mobility, or Volume through Treatment:*
  - Source control, capping amendments

Evaluation Criteria – Draft FS

Balancing Criteria (continued)

- *Short-term Effectiveness:*
  - Time to achieve RAOs
  - Worker risks, community impacts
  - Resuspension during dredging
  - Downstream and upstream transport
- *Implementability:*
  - Technical feasibility
  - Monitoring
  - Future use
  - Services and materials availability
  - Best Management Practices
  - Construction Challenges
  - Administrative Matters
- *Cost:* Estimated remedy cost (capital and O&M costs)

Evaluation Criteria – Draft FS

Modifying Criteria

- *State Acceptance:* Considered by EPA during remedy selection and ROD preparation

- *Community Acceptance:* Considered by EPA during remedy selection and ROD preparation

Contaminated Sediment Technical Advisory Group/National Remedy Review Board

CSTAG/NRRB Meeting

November 19-21, 2019

NRRB

- NRRB is a peer review group that reviews proposed Superfund cleanup decisions that meet cost-based review criteria to make sure they are consistent with Superfund law, regulations and guidance.
- Remedial actions cost more than $50 million

CSTAG

- CSTAG is a group of scientists, engineers and site managers with expertise in sediment site management and evaluation

CSTAG Meetings

- 1) Site characterization, near completion of the remedial investigation;
- (2) Preliminary remediation goal and remedial action objective development near completion of risk assessments;
- (3) Development of the site's overall cleanup strategy and evaluation of remedial alternatives at or near completion of the draft feasibility study;
- (4) Prior to the proposed plan

CSTAG Meeting # 3

- Development of the site's overall cleanup strategy and evaluation of remedial alternatives
- Description of:
  - The incorporation or consideration of early actions, removals, or iterative or phased approaches;
  - The development and screening of alternatives
  - Alternative evaluations and comparisons and underlying assumptions; and
- Development and implementation of predictive approaches for evaluating sediment stability, remedy effectiveness, or natural recovery.

CSTAG/NRRB Meeting

- Stakeholders are invited to provide written materials and give a short oral presentation
- Stakeholders should be sent invitations at least six weeks before the meeting
- The presentation should identify any issues important to the stakeholder, should be no more than 20 minutes and allow 10 minutes for CSTAG questions
- All written submittals, including a summary of each oral presentation, should be sent to the EPA RPM at least one week before the meeting and should not exceed 30 pages

Upper 9 Mile Short-term Schedule

- September 17 – CAG Meeting
- October 7 – EPA to send invite and written summary to CAG
- November 12 – Written materials due from CAG
- November 14 – CAG Meeting
- November 19-21 - CSTAG/NRRB Meeting

Upper 9 Mile Long-term Schedule

- November 2019 – CSTAG/NRRB Meeting
- Winter 2019 – Finalize FS
- Winter 2019/2020
  - Brief EPA Administrator
  - Fourth CSTAG meeting
- Spring 2020 – Proposed Plan
- Fall 2020 – Record of Decision for Interim Remedy for Source Control